

REMARKS

Favorable reconsideration and allowance of this application are requested.

1. Discussion of Claim Amendments

By way of the amendment instructions above, independent claim 1 has been revised so as to emphasize the steps employed to form an injection molded plastics article by means of injection molding. Thus, claim 1 now refers to making an "injection molded" article, by filling a mould "cavity" with a "molten" plastic composition, and "following cooling of the plastic composition, removing the injection molded plastic article from the mould cavity." Ample support exists in the originally filed specification for such amendments, such as the discussion appearing in the Examples on pages 10-11, e.g., at page 10, lines 29-30 (*"The sample of gold coated film was introduced in an open mould..."*), page 11, lines 2-3 (*"After closing the mould, the mould cavity was filled with a molten PC/ABS composition...."*), and page 11, lines 7 (*"the cooling time was approximately 20 sec...."*) and page 11, line 11 (*"On removing the moulded article from the mould...."*).

Claim 6 has been amended so as to provide definition of other metallization techniques as disclosed on page 2, lines 10-12. (*"Known techniques for metallizing as e.g. electroless plating, metal spraying, sputtering or vacuum metallization are described in many handbooks...."*)

Claims 18-19 have been amended so as to clarify that an "injection-moulded" plastic article is defined thereby. Minor changes have been made to claims 20-21 so as to employ product-by-process phraseology more suitable for US practice.

Claims 23-25 are new. In this regard, claim 23 is based on prior claim 13 but depends from claim 18. Claim 24 requires that the metal layer partially cover the surface of the metallized film as supported by page 2, line 16. Claim 25 requires that

the metallized film face the surface of the plastic composition as supported by page 3, lines 10-18.

Therefore, following entry of this amendment claims 1-25 will remain pending herein for consideration.

2. Response to 35 USC §102(b) Rejections

Claims 18-20 and 22 attracted a rejection under 35 USC §102(b) as allegedly anticipated by Minnick (USP 5110668). Applicants disagree.

The Examiner asserts that Minnick teaches a flexible laminate. Applicants do not disagree. The flexible laminate as disclosed in Minnick is *not* however “an injection-moulded plastic article” as defined in by the pending claims. Indeed, the only disclosure of multiple plastic layers appears at column 12, line 40-44 of Minnick wherein “..a laminate made by melt laminating one or more layers of copolyetherester resin film with a layer of flexible fabric and a layer of metal substrate” is disclosed. At column 12, lines 46-52 further state that:

“The respective layers are deposited in the sequence as shown and described in FIGS. 1-5...and are subjected to temperatures which soften or melt the copolyetherester resin film while pressure is applied to uniformly seat the layers in such a manner that the respective layers contact each other while the copolyetherester resin film is in a softened or melted state.”

The passages noted above are most certainly not descriptive at all of an injection-moulding process and/or an injection-moulded article which results from such process as defined in the pending claims.

The Examiner further asserts that Minnick's "a flexible laminate comprising a metal surface 4" reads upon a "metallized surface layer." However, applicants note that the correct comparison is to determine whether "a flexible laminate comprising a metal surface 4" reads upon a "metallized surface" obtained with the process according to the pending claims. In this regard, the metal surface 4 taught in Minnick is a flexible metal substrate, such as copper foil (column 11, lines 42-43). In contrast, a metallized surface in accordance with the presently claimed invention is a metallized film which has a surface that has been *coated* with a metal layer by a metallization technique, e.g., via vacuum metallizing – that is a technique which deposits a very thin film of metal on a substrate to produce a metallic appearance on its surface.¹

Therefore, in view of the above, applicants suggest that claims 18-20 and 22 are not anticipated by Minnick. Withdrawal of such rejection is in order.

2. Response to 35 USC §103(a) Rejections

A. Rejection Based on Minnick

Claims 1-5, 7-9 and 11-17 attracted a rejection under 35 USC §103(a) as allegedly "obvious" and hence unpatentable over Minnick. Applicants disagree.

At the outset, the comments above are equally germane to the *non-obviousness* of the pending claims herein vis-à-vis Minnick. Moreover, Minnick relates to textile fabric/metal layer composite materials, wherein a thermoplastic elastomer (TPE) layer is used as an ***intermediate adhesive layer*** between the textile fabric and the metal layer. The adhesive layer can be applied by casting the TPE on either the textile fabric or the metal layer or by positioning a pre-formed film of the TPE in between the textile fabric and the metal layer and pressing such layers at elevated temperature (column 8, lines 55-59 and Example 3).

¹ See, http://www.sgia.org/training_and_education/glossary/Vv.cfm

Minnick most certainly does **not** relate to an injection moulding process for making plastic injection-moulded articles with a specific surface layer as in the presently claimed invention. In addition, Minnick does not disclose or suggest a “metallized film” for the reasons already noted above. Thus, an ordinarily skilled person in this art would therefore understand that metallized film is a film which is coated with a metal layer, for example, by vacuum metallizing. The metallized layer is suitable for use as an electrical/thermal conductor or a gaseous barrier (page 3, lines 2 to 7 of the specification). In contrast, Minnick discloses a metal cladding or foil which exhibits toughness suitable for use in sanding belts (column 2, lines 18-21).

Minnick therefore does not relate to either the technical problems or the technical issues as addressed and solved by the presently claimed invention. For example, Minnick does not disclose any issue with regard to deformability of the TPE film and its possible use in a moulding process to form 3-dimensional parts without the need of making or draping a 3-dimension preform as is contemplated by the presently claimed invention.

The Examiner asserts that:

“Minnick does not specifically teach a process wherein the laminate film is introduced to a mold and the encapsulant layer is formed by injection molding as instantly claimed. However, injection molding is an obvious method of applying a polymer layer to a laminate....” (Official Action at page 3, paragraph 4, lines 4-7.)

What the Examiner fails to appreciate is that the encapsulant layer in Minnick “...**must not soften and flow into the fabric** at the temperature required to soften the copolyetherester resin film when the laminate is heated to adhere the metal to the fabric.” (column 9, lines 65-68, emphasis added) As such, Minnick teaches directly

away from the possibility of injection molding the encapsulant layer as this would lead to the flow of the encapsulant layer into the fabric....i.e., since the plastics material would necessarily need to be molten when injected onto the fabric. In fact, Minnick teaches that eh encapsulant layer is to be adhered to the fabric by applying the encapsulant layer as a film and applying pressure and heat. (column 10, lines 9-16)

Accordingly, applicants submit that all pending claims herein are patentably unobvious over Minnick.

B. Rejection Based on Goertz et al

Claims 1-22 attracted a rejection under 35 USC §103(a) as allegedly “obvious” over Goertz et al (US Published Application 2004/0115389).

Applicants note in this regard that Goertz et al rises to the status of “prior art” against the subject application only under 35 USC §102(e). In addition, applicants note that the subject application and Goertz et al are owned by the same entity, namely DSM IP Assets BV.² Therefore, Goertz et al is disqualified as a reference against the present application pursuant to 35 USC §103(c).

3. Response to Double Patenting Rejection

Applicants request that the provisional double patenting rejection advanced against claims 1-22 based on claims 1-5, 7 and 9-23 of Goertz et al be held in abeyance pending an indication of allowable subject matter.

² Please see in this regard the assignments recorded in the USPTO at Reel 015128/Frame 0943 and at Reel 016898/Frame 0575.

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4. Fee Authorization

The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, in the fee(s) filed, or asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Account No. 14-1140.

Respectfully submitted,

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